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7  713/200      (5 OR, 2 XR)
        Class    713 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                            SYSTEMS:  SUPPORT
        713/200          SECURITY


6  705/51       (3 OR, 3 XR)
        Class    705 :  DATA PROCESSING: FINANCIAL, BUSINESS
                            PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION
        705/50           BUSINESS PROCESSING USING CRYPTOGRAPHY
        705/51           .Usage protection of distributed data files


6  713/201      (3 OR, 3 XR)
        Class    713 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                            SYSTEMS:  SUPPORT
        713/200          SECURITY
        713/201          .Computer network


5  707/9        (1 OR, 4 XR)
        Class    707 :  DATA PROCESSING:  DATABASE AND FILE
                            MANAGEMENT OR DATA STRUCTURES
        707/1            DATABASE OR FILE ACCESSING
        707/9            .Privileged access


4  705/53       (0 OR, 4 XR)
        Class    705 :  DATA PROCESSING: FINANCIAL, BUSINESS
                            PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION
        705/50           BUSINESS PROCESSING USING CRYPTOGRAPHY
        705/51           .Usage protection of distributed data files
        705/52           ..Usage or charge determination
        705/53           ...Including third party for collecting or
                            distributing payment (e.g., clearinghouse)


3  235/380      (0 OR, 3 XR)
        Class    235 :  REGISTERS
        235/375          SYSTEMS CONTROLLED BY DATA BEARING RECORDS
        235/380          .Credit or identification card systems


3  340/825.5    (0 OR, 3 XR)
        Class    340 :  COMMUNICATIONS:  ELECTRICAL
        340/825          SELECTIVE
        340/825.5        .Lockout or priority (programmed or variable)


3  345/751      (2 OR, 1 XR)
        Class    345 :  COMPUTER GRAPHICS PROCESSING, OPERATOR
                            INTERFACE PROCESSING, AND SELECTIVE VISUAL   DISPLAY
                            SYSTEMS
        345/700          OPERATOR INTERFACE (E.G., GRAPHICAL USER
                            INTERFACE)
        345/751          .Computer supported collaborative work between
                            plural users


3  707/10       (2 OR, 1 XR)
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       Class   707 :   DATA PROCESSING:  DATABASE AND FILE
                         MANAGEMENT OR DATA STRUCTURES
       707/1            DATABASE OR FILE ACCESSING
       707/10           .Distributed or remote access

3  709/229         (1 OR, 2 XR)
       Class   709 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                         SYSTEMS:  MULTIPLE COMPUTER OR PROCESS    COORDINATING
       709/200          MULTICOMPUTER DATA TRANSFERRING
       709/227          .Computer-to-computer session/connection
                          establishing
       709/229          ..Network resources access controlling

3  711/152         (1 OR, 2 XR)
       Class   711 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                         SYSTEMS: MEMORY
       711/100          STORAGE ACCESSING AND CONTROL
       711/147          .Shared memory area
       711/152          ..Memory access blocking

3  711/212         (0 OR, 3 XR)
       Class   711 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                         SYSTEMS: MEMORY
       711/200          ADDRESS FORMATION
       711/212          .Varying address bit-length or size

3  713/168         (1 OR, 2 XR)
       Class   713 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                         SYSTEMS:  SUPPORT
       713/150          MULTIPLE COMPUTER COMMUNICATION USING
                          CRYPTOGRAPHY
       713/168          .Particular communication authentication
                          technique

3  713/176         (2 OR, 1 XR)
       Class   713 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                         SYSTEMS:  SUPPORT
       713/150          MULTIPLE COMPUTER COMMUNICATION USING
                          CRYPTOGRAPHY
       713/168          .Particular communication authentication
                          technique
       713/176          ..Authentication by digital signature
                          representation or digital watermark

3  714/21          (3 OR, 0 XR)
       Class   714 :   ERROR DETECTION/CORRECTION AND FAULT
                         DETECTION/RECOVERY
       714/100          DATA PROCESSING SYSTEM ERROR OR FAULT HANDLING

       714/1            .Reliability and availability
       714/2            ..Fault recovery
       714/15           ...State recovery (i.e., process or data file)

       714/21           ....State validity check

2  370/455         (2 OR, 0 XR)
       Class   370 :   MULTIPLEX COMMUNICATIONS
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       370/431        CHANNEL ASSIGNMENT TECHNIQUES
       370/449        .Polling
       370/450        ..Passing a signal identifying the idle or busy
                             state of a channel (e.g., token passing)
       370/451        ...On bus
       370/452        ....On ring or loop
       370/455        .....Including priority resolution


2   380/30          (0 OR, 2 XR)
       Class   380 :  CRYPTOGRAPHY
       380/28         PARTICULAR ALGORITHMIC FUNCTION ENCODING
       380/30         .Public key


2   380/54          (0 OR, 2 XR)
       Class   380 :  CRYPTOGRAPHY
       380/54         BY MODIFYING OPTICAL IMAGE (E.G., TRANSMISSIVE
                             OVERLAY)


2   386/46          (2 OR, 0 XR)
       Class   386 :  TELEVISION SIGNAL PROCESSING FOR DYNAMIC
                             RECORDING OR REPRODUCING
       386/46         PROCESSING OF TELEVISION SIGNAL FOR DYNAMIC
                             RECORDING OR REPRODUCING


2   386/95          (0 OR, 2 XR)
       Class   386 :  TELEVISION SIGNAL PROCESSING FOR DYNAMIC
                             RECORDING OR REPRODUCING
       386/46         PROCESSING OF TELEVISION SIGNAL FOR DYNAMIC
                             RECORDING OR REPRODUCING
       386/95         .Having another signal


2   705/52          (0 OR, 2 XR)
       Class   705 :  DATA PROCESSING: FINANCIAL, BUSINESS
                             PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION
       705/50         BUSINESS PROCESSING USING CRYPTOGRAPHY
       705/51         .Usage protection of distributed data files
       705/52         ..Usage or charge determination


2   705/54          (0 OR, 2 XR)
       Class   705 :  DATA PROCESSING: FINANCIAL, BUSINESS
                             PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION
       705/50         BUSINESS PROCESSING USING CRYPTOGRAPHY
       705/51         .Usage protection of distributed data files
       705/52         ..Usage or charge determination
       705/54         ...Adding plural layers of rights or
                             limitations by other than the original producer


2   705/55          (1 OR, 1 XR)
       Class   705 :  DATA PROCESSING: FINANCIAL, BUSINESS
                             PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION
       705/50         BUSINESS PROCESSING USING CRYPTOGRAPHY
       705/51         .Usage protection of distributed data files
       705/55         ..Requiring a supplemental attachment or input
                             (e.g., dongle) to open


2   705/57          (1 OR, 1 XR)
       Class   705 :  DATA PROCESSING: FINANCIAL, BUSINESS
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                       PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION
         705/50        BUSINESS PROCESSING USING CRYPTOGRAPHY
         705/51        .Usage protection of distributed data files
         705/57        ..Copy protection or prevention


2  705/65        (0 OR, 2 XR)
         Class  705 :  DATA PROCESSING: FINANCIAL, BUSINESS
                       PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION
         705/50        BUSINESS PROCESSING USING CRYPTOGRAPHY
         705/64        .Secure transaction (e.g., EFT/POS)
         705/65        ..Including intelligent token (e.g., electronic
                         purse)


2  705/67        (1 OR, 1 XR)
         Class  705 :  DATA PROCESSING: FINANCIAL, BUSINESS
                       PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION
         705/50        BUSINESS PROCESSING USING CRYPTOGRAPHY
         705/64        .Secure transaction (e.g., EFT/POS)
         705/65        ..Including intelligent token (e.g., electronic
                         purse)
         705/67        ...Including authentication


2  705/80        (1 OR, 1 XR)
         Class  705 :  DATA PROCESSING: FINANCIAL, BUSINESS
                       PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION
         705/80        ELECTRONIC NEGOTIATION


2  707/201       (2 OR, 0 XR)
         Class  707 :  DATA PROCESSING:  DATABASE AND FILE
                       MANAGEMENT OR DATA STRUCTURES
         707/200       FILE OR DATABASE MAINTENANCE
         707/201       .Coherency (e.g., same view to multiple users)


2  707/203       (1 OR, 1 XR)
         Class  707 :  DATA PROCESSING:  DATABASE AND FILE
                       MANAGEMENT OR DATA STRUCTURES
         707/200       FILE OR DATABASE MAINTENANCE
         707/201       .Coherency (e.g., same view to multiple users)

         707/203       ..Version management

2  709/217       (1 OR, 1 XR)
         Class  709 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                       SYSTEMS:  MULTIPLE COMPUTER OR PROCESS   COORDINATING
         709/200       MULTICOMPUTER DATA TRANSFERRING
         709/217       .Remote data accessing

2  709/226       (0 OR, 2 XR)
         Class  709 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                       SYSTEMS:  MULTIPLE COMPUTER OR PROCESS   COORDINATING
         709/200       MULTICOMPUTER DATA TRANSFERRING
         709/223       .Computer network managing
         709/226       ..Network resource allocating

2  710/1         (1 OR, 1 XR)
         Class  710 :  ELECTRICAL COMPUTERS AND DIGITAL DATA
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                        PROCESSING SYSTEMS:  INPUT/OUTPUT
        710/1           INPUT/OUTPUT DATA PROCESSING


  2  710/200        (1 OR,  1 XR)
        Class    710 :  ELECTRICAL COMPUTERS AND DIGITAL DATA
                        PROCESSING SYSTEMS:  INPUT/OUTPUT
        710/200         ACCESS LOCKING


  2  710/52         (0 OR,  2 XR)
        Class    710 :  ELECTRICAL COMPUTERS AND DIGITAL DATA
                        PROCESSING SYSTEMS:  INPUT/OUTPUT
        710/1           INPUT/OUTPUT DATA PROCESSING
        710/52          .Input/Output data buffering


  2  711/119        (1 OR,  1 XR)
        Class    711 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                        SYSTEMS: MEMORY
        711/100         STORAGE ACCESSING AND CONTROL
        711/117         .Hierarchical memories
        711/118         ..Caching
        711/119         ...Multiple caches


  2  711/122        (0 OR,  2 XR)
        Class    711 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                        SYSTEMS: MEMORY
        711/100         STORAGE ACCESSING AND CONTROL
        711/117         .Hierarchical memories
        711/118         ..Caching
        711/119         ...Multiple caches
        711/122         ....Hierarchical caches


  2  711/133        (0 OR,  2 XR)
        Class    711 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                        SYSTEMS: MEMORY
        711/100         STORAGE ACCESSING AND CONTROL
        711/117         .Hierarchical memories
        711/118         ..Caching
        711/133         ...Entry replacement strategy


  2  711/141        (0 OR,  2 XR)
        Class    711 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                        SYSTEMS: MEMORY
        711/100         STORAGE ACCESSING AND CONTROL
        711/117         .Hierarchical memories
        711/118         ..Caching
        711/141         ...Coherency


  2  711/145        (0 OR,  2 XR)
        Class    711 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                        SYSTEMS: MEMORY
        711/100         STORAGE ACCESSING AND CONTROL
        711/117         .Hierarchical memories
        711/118         ..Caching
        711/141         ...Coherency
        711/145         ....Access control bit


  2  711/147        (0 OR,  2 XR)
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      Class   711 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS: MEMORY
      711/100           STORAGE ACCESSING AND CONTROL
      711/147           .Shared memory area

2  711/163        (1 OR, 1 XR)
      Class   711 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS: MEMORY
      711/100           STORAGE ACCESSING AND CONTROL
      711/154           .Control technique
      711/163           ..Access limiting

2  711/170        (0 OR, 2 XR)
      Class   711 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS: MEMORY
      711/100           STORAGE ACCESSING AND CONTROL
      711/170           .Memory configuring

2  711/2          (2 OR, 0 XR)
      Class   711 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS: MEMORY
      711/1             ADDRESSING COMBINED WITH SPECIFIC MEMORY
                          CONFIGURATION OR SYSTEM
      711/2             .Addressing extended or expanded memory

2  711/205        (0 OR, 2 XR)
      Class   711 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS: MEMORY
      711/200           ADDRESS FORMATION
      711/202           .Address mapping (e.g., conversion,
                          translation)
      711/203           ..Virtual addressing
      711/204           ...Predicting, look-ahead
      711/205           ....Directories and tables (e.g., DLAT, TLB)

2  711/207        (0 OR, 2 XR)
      Class   711 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS: MEMORY
      711/200           ADDRESS FORMATION
      711/202           .Address mapping (e.g., conversion,
                          translation)
      711/203           ..Virtual addressing
      711/206           ...Translation tables (e.g., segment and page
                          table or map)
      711/207           ....Directory tables (e.g., DLAT, TLB)

2  711/208        (0 OR, 2 XR)
      Class   711 :   ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS: MEMORY
      711/200           ADDRESS FORMATION
      711/202           .Address mapping (e.g., conversion,
                          translation)
      711/203           ..Virtual addressing
      711/206           ...Translation tables (e.g., segment and page
                          table or map)
      711/208           ....Segment or page table descriptor
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2  711/221      (2 OR, 0 XR)
       Class   711 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS: MEMORY
          711/200        ADDRESS FORMATION
          711/221        .Using table


2  711/3        (1 OR, 1 XR)
       Class   711 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS: MEMORY
          711/1          ADDRESSING COMBINED WITH SPECIFIC MEMORY
                            CONFIGURATION OR SYSTEM
          711/3          .Addressing cache memories


2  713/1        (1 OR, 1 XR)
       Class   713 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS:  SUPPORT
          713/1          DIGITAL DATA PROCESSING SYSTEM INITIALIZATION
                            OR CONFIGURATION (E.G., INITIALIZING, SET UP,
                            CONFIGURATION, OR RESETTING)


2  713/165      (1 OR, 1 XR)
       Class   713 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS:  SUPPORT
          713/150        MULTIPLE COMPUTER COMMUNICATION USING
                            CRYPTOGRAPHY
          713/164        .Security kernel or utility
          713/165        ..File protection


2  713/172      (0 OR, 2 XR)
       Class   713 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS:  SUPPORT
          713/150        MULTIPLE COMPUTER COMMUNICATION USING
                            CRYPTOGRAPHY
          713/168        .Particular communication authentication
                            technique
          713/172        ..Intelligent token


2  713/193      (1 OR, 1 XR)
       Class   713 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS:  SUPPORT
          713/189        DATA PROCESSING PROTECTION USING CRYPTOGRAPHY

          713/193        .By stored data protection


2  713/194      (1 OR, 1 XR)
       Class   713 :  ELECTRICAL COMPUTERS AND DIGITAL PROCESSING
                          SYSTEMS:  SUPPORT
          713/189        DATA PROCESSING PROTECTION USING CRYPTOGRAPHY

          713/194        .Tamper resistant


2  715/500      (1 OR, 1 XR)
       Class   715 :  DATA PROCESSING:  PRESENTATION PROCESSING OF
                          DOCUMENT
          715/500        MISCELLANEOUS
```